WHAT IS CLAIMED IS:

1. A method for creating a secure powerline modem network, comprising the steps of:

transmitting a private key individually to each of the plurality of powerline modem devices to be secured in a network such that each powerline modem device receives the private key in isolation of the network, each of the plurality of powerline modem devices store the private key;

computing a public key, by a master device in the network to be secured;

transmitting the public key from the master device to the plurality of devices;

computing a shared key at each of the plurality of powerline devices based on the public key and the private key; and

communicating within the secured network by employing messages encrypted based on the shared key.

2. The method as recited in claim 1, wherein the step of computing a public key includes computing the public key, X, by the following formula:

$X = g^x \bmod n$, where g and n are numbers resident at each powerline modem device and x is the number generated at the master device.

3. The method as recited in claim 1, wherein the step of computing a shared key includes the step of computing the shared key according to the following formula:

$Y=(g^x)^y \bmod n$, where Y is the shared key, g and n are numbers resident at each powerline modem device, x is the number generated at the master device and y is the private key.

4. The method as recited in claim 1, wherein the step of computing a shared key includes the step of computing the shared key according to the following formula:

$Y=(X)^y$, where Y is the shared key, y is the private key and X is the public key.

5. The method as recited in claim 1, wherein the step of transmitting a private key includes the step of connecting each of the plurality of the powerline modem devices to a portable security device which transmits the private key directly to the powerline modem device in isolation from other powerline modem devices.

6. The method as recited in claim 5, wherein the step of transmitting a secured identification number includes proving an actual connection between the portable security device and the powerline modem device exists.

7. The method as recited in claim 5, further comprising the step of transmitting data to a powerline modem device from the portable security device.

8. The method as recited in claim 7, wherein the data includes a software update for a powerline modem device.

9. The method as recited in claim 1, wherein the step of transmitting a private key includes the step of transmitting a wireless signal to each of the plurality of the powerline modem devices to transmit the private key directly to the powerline modem device in isolation from other powerline modem devices.

10. The method as recited in claim 1, wherein the step of transmitting a private key includes triggering a transfer of the identification number by an act of a user.

11. The method as recited in claim 1, further comprising the step of providing the private key such that a length of the private key scales a level of security.

12. A method for creating a secure powerline modem network, comprising the steps of:

providing a security device capable of storing and transmitting a private key to a powerline modem device;

connecting the security device to each powerline modem device to be secured in a network;

transmitting a private key individually to each of the plurality of powerline modem devices to be secured in the network such that each powerline modem device receives the private key in isolation of the network, each of the plurality of powerline modem devices store the private key;

computing a public key, by a master device in the network to be secured;

transmitting the public key from the master device to the plurality of devices;

computing a shared key at each of the plurality of powerline devices based on the public key and the private key; and

communicating within the secured network by employing messages encrypted based on the shared key.

13. The method as recited in claim 12, wherein the step of computing a public key includes computing the public key, X, by the following formula:

$X = g^x \bmod n$, where g and n are numbers resident at each powerline modem device and x is the number generated at the master device.

14. The method as recited in claim 12, wherein the step of computing a shared key includes the step of computing the shared key according to the following formula:

$Y=(g^x)^y$ mod n, where Y is the shared key, g and n are numbers resident at each powerline modem device, x is the number generated at the master device and y is the private key.

15. The method as recited in claim 12, wherein the step of computing a shared key includes the step of computing the shared key according to the following formula:

$Y=(X)^y$, where Y is the shared key, y is the private key and X is the public key.

16. The method as recited in claim 12, wherein the step of transmitting a private key includes proving an actual connection between the security device and the powerline modem device exists.

17. The method as recited in claim 12, wherein the step of transmitting a private key includes the step of transmitting a wireless signal to each of the plurality of the powerline modem devices to transmit the private key directly to the powerline modem device in isolation from other powerline modem devices.

18. The method as recited in claim 12, wherein the step of transmitting a private key includes triggering a transfer of the identification number by an act of a user.